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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,106	01/11/2002	Maxime Allard	IN-5528	5758

26922 7590 08/04/2004

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EXAMINER
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MCCLENDON, SANZA L

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/018,106	ALLARD ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sanza L McClendon	1711	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,10-12 and 16 is/are allowed.
- 6) ☒ Claim(s) 1-4,7-9 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. In response to the Amendment received on May 3, 2004, the examiner has carefully considered the amendments.

### *Response to Arguments*

2. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

The obvious-type double patenting rejection has been withdrawn because serial number 09/009,934 has been abandoned per explanation in applicant's arguments.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1-4, 7, 9 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Flosbach et al (WO 99/55785)—wherein US 6,332,291 is being used as the English language equivalent.

Flosbach et al teaches radiation curable coatings and their use. Said coatings comprise curing a composition comprising A) compound having one or more free-radically polymerizable bonds and additionally at least one further functional group reactive for the purposes of an addition and/or condensation reaction, B) compounds having one or more free-radically polymerizable bonds and additionally at least one further functional group reactive for the purposes of an addition and/or condensation reaction, wherein the additional reactive functional group is complementary to or reactive toward the additional reactive functional groups of component A), C) optionally at least one monomeric,

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oligomeric and/or polymeric compound having at least one functional group reactive towards the functional groups from component A) or component B), D) one or more photoinitiators, as well as, E) optionally solvents, water, pigments and/or extenders as well as conventional lacquer additives. Preferably component A) can be a (meth) acryloyl-functional polyurethane, polyepoxides, poly (meth) acrylate, and/or polyester containing hydroxyl groups and component B) can be a (meth) acryloyl-functional polyurethane, poly (meth) acrylate, polyester and/or polyepoxides containing isocyanate groups, wherein it is taught that the hydroxy containing component preferably has a hydroxyl number from 30 to 150 and the isocyanate containing component has an NCO content from 2 to 30%--see columns 5-6. These teachings appear to anticipate claims 2-3 and 13-15. Said components A) and/or B) may be present in combination with free-radically polymerizable reactive diluents, i.e., reactive polymerizable liquid monomers, which can be found in column 6, lines 55 to the end. This appears to anticipate (A5) of claim 1. Component C) as described previously has to have functional groups which react in an addition and/or condensation reaction with the functional groups of components A) and/or B) but not with the (meth) acryloyl functional of either compound. Therefore components C) can have hydroxyl, amino, isocyanate, epoxide, carboxyl and/or anhydride functional groups, however hydroxyl and isocyanates are preferred. Flosbach et al teaches that conventional polyester polyols, poly (meth) acrylate polyols, polycarbonate polyols, polyurethane polyols, and/or polyester urethane polyols can be used in the addition and/or condensation reaction with component A). Flosbach et al also teaches conventional radiation curable polyesters, poly (meth) acrylates, polyurethanes and others found in column 7, lines 10-12 can also be added in the composition. This appears to anticipate component (A6) of

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applicant' s claim 1. In addition component C) can be polyisocyanates. The examiner deems the when C) is chosen as the polyisocyanate compound it appears to anticipate applicant' s (A7) components. The examiner deems that when component C) is chosen to be polyisocyanate (A4), the (meth) acryloyl polyurethane having hydroxyl groups reads on applicant' s (A1), and the (meth) acryloyl comprising polyurethane having from 2 to 30% free isocyanate groups reads on applicant' s (A2) components. These components in combination with the conventional coating additive, such as other polyesters and polyurethanes (corresponding to applicant' s A6), the photoinitiator (corresponding to applicant' s (A3), and the reactive diluent in combination with A) or B) (corresponding to applicant' s (A5) are deemed to anticipate applicant' s claim 1, since component (A7) appears to be optional, i.e., only added if A1 does not have functional group (a12).

Flosbach et al teaches the compositions can be used for the production of multi-layer lacquer coatings in the automotive sector, wherein the automotive parts being coated are deemed to anticipate the SMC and BMC of claims 4 and 7-8, wherein these are taught by Flosbach to be metal and/or plastic parts—see column 9, lines 64-65. Said compositions can be applied onto the substrate by conventional methods of spraying. Flosbach et al teaches said compositions can be crosslinked and cured by irradiation for UV sources, which can be additionally cured to a complete cure by additionally exposing the irradiated composition to heat at temperatures for example from 30 to 120 °C. The multi-layered structure can be prepared by coating individual layers and curing or by coating multiple layers and then curing.

The invention of claims 1-4, 7, 9, and 13-15 are anticipated by the reference.

2. Claims 1-4, 7, 9 and 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Flosbach et al (US 6,332,291).

Flosbach et al teaches radiation curable coatings and their use. Said coatings comprise curing a composition comprising A) compound having one or more free-radically polymerizable bonds and additionally at least one further functional group reactive for the purposes of an addition and/or condensation reaction, B) compounds having one or more free-radically polymerizable bonds and additionally at least one further functional group reactive for the purposes of an addition and/or condensation reaction, wherein the additional reactive functional group is complementary to or reactive toward the additional reactive functional groups of component A), C) optionally at least one monomeric, oligomeric and/or polymeric compound having at least one functional group reactive towards the functional groups from component A) or component B), D) one or more photoinitiators, as well as, E) optionally solvents, water, pigments and/or extenders as well as conventional lacquer additives. Preferably component A) can be a (meth) acryloyl-functional polyurethane, polyepoxides, poly (meth) acrylate, and/or polyester containing hydroxyl groups and component B) can be a (meth) acryloyl-functional polyurethane, poly (meth) acrylate, polyester and/or polyepoxides containing isocyanate groups, wherein it is taught that the hydroxy containing component preferably has a hydroxyl number from 30 to 150 and the isocyanate containing component has an NCO content from 2 to 30%--see columns 5-6. These teaching appear to anticipate claims 2-3 and 13-15. Said components A) and/or B) may be present in combination with free-radically polymerizable reactive diluents, i.e., reactive polymerizable liquid monomers, which can be found in column 6, lines 55 to the

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end. This appears to anticipate (A5) of claim 1. Component C) as described previously has to have functional groups which react in an addition and/or condensation reaction with the functional groups of components A) and/or B) but not with the (meth) acryloyl functional of either compound. Therefore components C) can have hydroxyl, amino, isocyanate, epoxide, carboxyl and/or anhydride functional groups, however hydroxyl and isocyanates are preferred. Flosbach et al teaches that conventional polyester polyols, poly (meth) acrylate polyols, polycarbonate polyols, polyurethane polyols, and/or polyester urethane polyols can be used in the addition and/or condensation reaction with component A). Flosbach et al also teaches conventional radiation curable polyesters, poly (meth) acrylates, polyurethanes and others found in column 7, lines 10-12 can also be added in the composition. This appears to anticipate component (A6) of applicant' s claim 1. In addition component C) can be polyisocyanates. The examiner deems the when C) is chosen as the polyisocyanate compound it appears to anticipate applicant' s (A7) components. The examiner deems that when component C) is chosen to be polyisocyanate (A4), the (meth) acryloyl polyurethane having hydroxyl groups reads on applicant' s (A1), and the (meth) acryloyl comprising polyurethane having from 2 to 30% free isocyanate groups reads on applicant' s (A2) components. These components in combination with the conventional coating additive, such as other polyesters and polyurethanes (corresponding to applicant' s A6), the photoinitiator (corresponding to applicant' s (A3), and the reactive diluent in combination with A) or B) (corresponding to applicant' s (A5) are deemed to anticipate applicant' s claim 1, since component (A7) appears to be optional, i.e., only added if A1 does not have functional group (a12).



Flosbach et al teaches the compositions can be used for the production of multi-layer lacquer coatings in the automotive sector, wherein the automotive parts being coated are deemed to anticipate the SMC and BMC of claims 4 and 7-8, wherein these are taught by Flosbach to be metal and/or plastic parts—see column 9, lines 64-65. Said compositions can be applied onto the substrate by conventional methods of spraying. Flosbach et al teaches said compositions can be crosslinked and cured by irradiation for UV sources, which can be additionally cured to a complete cure by additionally exposing the irradiated composition to heat at temperatures for example from 30 to 120 °C. The multi-layered structure can be prepared by coating individual layers and curing or by coating multiple layers and then curing.

The invention of claims 1-4, 7, 9 and 13-15 are anticipated by the reference.

#### *Allowable Subject Matter*

3. Claims 6, 10-12 and 16 are allowed.
4. The following is an examiner's statement of reasons for allowance: The prior art fails to teach the method of eliminating microbubbles for a microporous substrate comprising the steps found in claims 6, 10-12 and 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

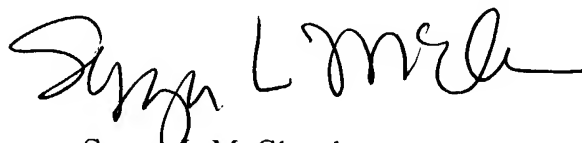
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*Conclusion*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sanza L McClendon

Examiner

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